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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/536,191	03/27/2000	Robert J. Donaghey	99-412	4645
28120	7590	10/17/2005	EXAMINER TRAN, PHUC H	
FISH & NEAVE IP GROUP ROPES & GRAY LLP ONE INTERNATIONAL PLACE BOSTON, MA 02110-2624			ART UNIT 2668	PAPER NUMBER

DATE MAILED: 10/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/536,191

Applicant(s)

DONAGHEY, ROBERT J.

Examiner

PHUC H. TRAN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 and 36-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 7, 14-24, 26-31 and 36-42 is/are rejected.
- 7) ☒ Claim(s) 4, 6, 8-13, 25 and 43 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 15-17 and 27-29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

- Regarding to claims 15-17, & 27-29, the “original form”, “a reverse order form”, “configured to differentiate the multiple forms of the data”, “configured to combine the multiple forms of the data” were not described in the specification in such a way as to reasonably convey to one skilled in the relevant art.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claim 41 is rejected under 35 U.S.C. 102(e) as being anticipated by Ono et al. (U.S. Patent No. 6715071 B2).

- With respect to claim 41, Ono teaches a communications protocol used in a network connecting a hub device to at least one peripheral device (e.g. Fig. 19 shows the hub 512 and devices 517, 518, 519), the communications protocol having a plurality of frames comprising: a beacon that marks a start of one of the frames (541 in Fig. 18); at least one token transmission that identifies one of the peripheral devices for a data transfer (543 in Fig. 18); and at least one data transfer opportunity that permits the hub device to communicate a data block with the identified peripheral device (hand-shake 545 in Fig. 18).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3, 5, 7, 14, 18-24, 26, 30-31, 36-40, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carneal et al. (U.S. Patent No. 6532220 B1) in view of Ono et al. (U.S. Patent No. 6715071 B2).

- With respect to claims 1, 20, 21, and 38, Carneal teaches a network (e.g. Fig. 1) comprising: a hub device configured to generate a token and broadcast the token on the network (col. 1, lines 38-41); and transfer data to or receive data from the hub device according to the determined size and direction of the current data transfer (col. 12, lines 58-61). Carneal fails to teach the token comprises a size and direction of a current data transfer when the token identifies the peripheral device. Ono teaches the token that comprises the size and direction of a current data transfer (Fig. 18, col. 20, lines 43-47) for communication between devices. The token of Ono can be implemented into the message of Carneal to provide the communication between the hub and remote unit. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to utilize the token into the message to communicate between the hub and the remote unit.

- With respect to claims 2, and 22, Carneal further comprises a single wireless communication channel having a plurality of logical unidirectional communication streams, the data transfer occurring over one of the communication streams (e.g. Figs. 2 and 3, for reservation channel for remote units with time slot assignment for each remote units).

- With respect to claims 3, 7, and 42, Carneal also teaches wherein the token includes: an address of one of the hub device and the peripheral device, and a stream number that identifies one of the communication streams (col. 1, lines 41-43).

- With respect to claim 5, Carneal teaches wherein the network operates according to a communications protocol shared by the hub device and the peripheral device to synchronize timing of communications (e.g. the time slot assigned for each remote units to communicate with the hub device).

- With respect to claims 14, and 26 Carneal discloses wherein at least one of the hub device and the peripheral device is further configured to transfer data in multiple forms (col. 3, lines 50-65).

- With respect to claim 18, Carneal teaches wherein the hub device is further configured to schedule transmission of a status block from the peripheral device (e.g. the time slot assign of each remote unit in TDM).

- With respect to claims 19, and 30-31, Carneal further teaches wherein the hub device is further configured to schedule transmission of data from the peripheral device when the status block from the peripheral device indicates that the peripheral device has data ready for transmission to the hub device (e.g. see details Fig. 2 and 3).

- With respect to claim 23, Carneal teaches wherein the generating a token includes: accessing a data block in the hub device to identify an address and a communication stream for the current data transfer, and generating the token based on the identified address and communication stream (e.g. the table in Fig. 2, col. 9, lines 4-7).

- With respect to claims 24, and 39, Carneal discloses wherein the determining includes: decoding the token to identify the address and the communication stream, and analyzing the identified address to determine whether the identified address matches an address of the peripheral device (col. 9, lines 13-23).

- With respect to claims 36-37, Carneal teaches a method for transferring data in a network connecting a hub device to a set of peripheral devices, the network operating according to a communications protocol having a plurality of alternating token slots and data transfer slots, the method, performed by the hub device, comprising: identifying an address and a communication stream for a current data transfer, the address identifying one of the peripheral devices (e.g. the table in Fig. 2, col. 9, lines 4-7); generating a token based on the identified address and communication stream and broadcasting the token on the network during one of the token slots (col. 1, lines 38-41); and communicating the data between the identified peripheral device and the hub device on the identified communication stream during one of the data transfer slots (e.g. the time assignment for each remote unit). Carneal fails to teach the token. Ono teaches the token (Fig. 18) for control the communication. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention as made to implement the token in the message for transmit control signal over wireless link to each remote unit in communication system.

- With respect to claim 40, Carneal teaches a peripheral device that communicates data in a network connecting at least one peripheral device to a hub device (e.g. Fig. 1), the peripheral device comprising: a memory that stores instructions (e.g. table in Fig. 3, col. 6, lines 30-32); and a processor that executes the instructions in the memory to receive a token from the hub device that identifies the peripheral device (col. 6, lines 33-39). Carneal fails to teach analyze the token to determine a size and direction of a current data transfer, and transfer data to or receive data from the hub device according to the determined size and direction of the current data transfer. Ono teaches the token that comprises the size and direction of a current data transfer

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(Fig. 18, col. 20, lines 43-47) for communication between devices. The token of Ono can be implemented into the message of Carneal to provide the communication between the hub and remote unit. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to utilize the token into the message to communicate between the hub and the remote unit.

Allowable Subject Matter

7. Claims 4, 6, 8-13, 25 and 43 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Jacobson et al. (U.S. Patent No. 6079033) discloses self-monitoring distributed hardware systems.

- Kamihara et al. (U.S. Patent No. 6901465 B2) discloses data transfer control device electronic equipment, and data transfer control method.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUC H. TRAN whose telephone number is (571) 272-3172. The examiner can normally be reached on M-F (8-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh M. Fan can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phuc Tran
Assistant Examiner
Art Unit 2664

P.t
10/11/05



DANG TON
PRIMARY EXAMINER